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Improving Student Success Rate in Open Distance Learning Settings through the Principle of Constructive Alignment

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Additional information is available at the end of the chapter

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Abstract

Statistics indicate that participation and access to higher education (HE) improved drastically, particularly through distance education. Despite the generosity of the massification of HE, a sizeable number of students do not complete their programs on record time. The majority of some of these students drop out. A convincing body of knowledge demonstrates that a plethora of factors contributes toward low student success rates in open distance learning (ODL) contexts. The main purpose of this conceptual argument is that technology-mediated constructively aligned pedagogical practices in ODL contexts can leverage student success rates. This chapter is qualitative and constructivist in nature and largely draws from the theory of constructive alignment and extant scholarship analysis to provide insights and understanding in improving students' graduation rates in ODL settings. Drawing from the theory of constructive alignment, in this conceptual argument, it can be concluded that aligning the activities of the pedagogical practices (teaching, assessment, and learning outcomes) and delivering them through information and communication technology promotes students' graduation rates.

Keywords: open distance learning, constructive alignment, student success rates, technology-mediated pedagogical practices, ODL settings

1. Introduction

Most countries in the world prioritized the agenda to expand enrolments in HE through aggressive policy changes. The UN [1] contends that "Higher education (HE) across the world is in a state of change, quickly shifting from being the privilege of an elite few to

mass participation, providing equal access to affordable and quality university education for all women and men, which is a global goal for 2030". Supporting this view, Tsipalakides [2] declares that HE has experienced a significant expansion in many countries and this resulted in the massification of this critical societal sector. Learning in higher education (HE) is accessed through different modes including distance, full time, or part time. Nitecki [3] maintains that the universities that provide open distance learning (ODL) programs rely on technology to make higher education more accessible to students.

The phenomenon of Open and Distance Education is made possible by the advent of technological discoveries, which impact heavily on the mode of curriculum delivery. The challenge to the agenda of wider HE participation is whether the massive student enrolments are translated into success rates or are just statistics of wider HE participation. There are a number of factors that contribute toward low students' success rate. These factors include the following: students' underpreparedness and lack of contact with lecturers and working students [4]. This chapter does not intend to disregard some of the fundamental factors that are contributing to low success rates of students, but its focus is on the assumption that an ODL constructively aligned and technology-mediated teaching can improve students' success rates. The principles of constructive alignment have long been promoted as powerful approaches to facilitating enhanced student outcomes [5]. A number of sections constitute this chapter. In the next section, I explore what open and distance learning entail, and then the concept of constructive alignment will be theorized. The rest of the discussions include the following sections: perspectives on students' success rates in ODL contexts, benefits of students' success rates, the need for constructively aligned and technology-driven ODL curriculum, designing teaching strategies and assessment strategies, and finally the intended learning outcomes for improved student success rates.

2. Describing open and distance learning

Tuition in open and distance learning contexts is conducted differently from face-to-face higher education settings. The economic challenges facing countries are impacting HE participation negatively and demand interventions which will enhance participation and success in HE sector. Manzoor [6] argues that the introduction of open and distance learning universities was regarded as a groundbreaking option in expanding access to higher education. Open and distance education is critical in ensuring that socioeconomic challenges facing the majority of countries of the world are alleviated.

The advent of ODL settings marked an error that is distinct from the traditional Higher Education provision. Open and distance learning is usually contrasted with conventional or face-to-face education, which may be described as the form of education which takes place in a classroom or an auditorium [7, 8]. In ODL settings, students receive tuition away from the physical structure of the institution [9], and this is a distinguishing feature between full-time learning and distance learning. Agiomirgianakis et al. [10] define distance education as any educational process in which all or most of the teaching is conducted by someone geographically removed from the learner, with all or most of the communication between teachers and learners being

conducted through electronic or print mediums. Allen and Seaman [11] define distance education as “that which uses one or more technologies to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor synchronously or asynchronously”. Teaching in ODL “encompasses a broad range of teaching, coaching, mentoring and monitoring activities that guide students through their courses, mediating the packaged learning materials and facilitating the learning process [12]”. ODL settings by their nature provide learning opportunities to students who are mature and working and who are unable to acquire access education in full-time, contact, and campus-based institutions [13].

According to Chawinga and Zozie [14], ODL is the type of teaching and learning which does not include face-to-face interaction between the student and the lecturer, and Chawinga and Zozie [14] further argue that the main objective of introducing ODL is to provide education to those students who are geographically distanced from the lecturers. Anderson and Dron [15] contend that since ODL started operating decades ago, distance education experienced different changes, and to these scholars, distance education can be classified into three distinct generations. According to Biggs [16], “the first generation of distance education technology was by postal correspondence, this was followed by a second generation, defined by the mass media of television, radio, and film production. Third-generation distance education introduced interactive technologies, first audio, then text, video, and then web and immersive conferencing.”

Flowing from the assertions above, largely, teaching in an ODL context should not be traditionally pedagogical but also technological driven due to the nature of these institutions. This will help in improving students’ graduation rate. In view of the above and given the nature of the distance instruction, Biggs [16] advocate for a distance education that is technologically mediated in order for it to reach students who are detached from the real classroom and also breach a gap between them and their teachers.

3. Theorizing constructive alignment

Cain et al. [17] are the advocates of the principles of constructive alignment. The principles of constructivism to teaching were critical when the theory of constructive alignment was formulated. Cain et al. [17] identified two critical important concepts of the constructive alignment theory, namely constructivism and alignment. According to them, the former concept relates to students giving meaning to what they are learning through relevant learning activities and the latter deals with what the teachers are doing. Constructive alignment uses constructivism as a guiding philosophy [18]. Theorists who believe in constructivism view knowledge as a human construction, which denotes the combination of constructivist learning theories and the curriculum that is aligned [18]. Biggs [19] believes in the motto: “It is what the student learns that counts”. The constructive alignment theory represents the idea that students should know in advance what is entailed in their learning, how they should learn, and how they are going to be tested in their learning [20, 21]. Cain and Babar [21] further argue that these principles advocate for teaching designed to involve students in learning activities,

teaching that optimizes the chances of student success, with the assessment tasks which are designed to enable clear findings as to how well learning outcomes have been attained [20].

Demuth [22] contends that the constructive alignment theory is a model of teaching that combines constructivist learning theory and aligned instruction design that intends to improve learning. According to Biggs [23], the main concepts of constructive alignment are learning objectives, learning activities, and assessment tasks. Tadesse et al. [24] postulate that the priority thing in the constructive alignment process is the development of intended learning outcomes. To them, teachers should first clarify and define learning outcomes, then describe teaching approaches and activities that will help to achieve the outcomes and ensure that what is being taught is directly linked to what students are expected to learn. The final step is to develop assessment strategies and activities linked to both teaching strategies and learning outcomes. When the elements of teaching such as learning outcomes, teaching, and assessment strategies are not linked, Tadesse et al. [24] describe such an education system as a poor education system.

Teachers through their engagement have to create learning opportunities that have to enable students to create meaning in their learning. The teaching activities decided upon should support the achievement of the learning outcomes. In the next section, it shall be argued that the constructively aligned learning outcomes, teaching and assessment strategies should be taught through technology to help achieve high student success rate.

Figure 1 (attached as appendix) represents the application of the principles of constructive alignment in ODL contexts. The figure also provides a picture of how pedagogy can be mediated through technological advances such as computers platforms such as laptops, tablets, and cell phones. The figure demonstrates a relationship of these constructive and collaborated pedagogical

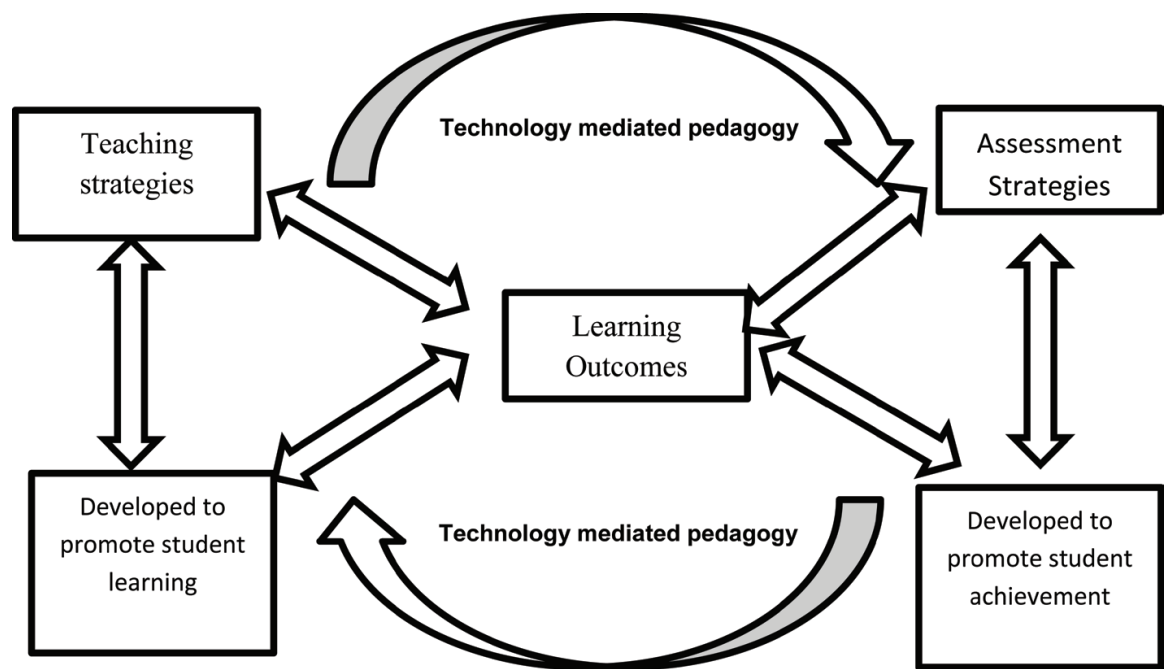


Figure 1. Constructively aligned and technology-mediated pedagogical practices (Adapted from Victoria University of Wellington, (2015) and modified).

practices, which promote student graduation rates. Teaching strategies and assessment methods are both designed in a manner that student learning and achievement is promoted.

4. Technology-enabled open and distance learning

The use of Information and Communication Technology (ICT) in ODL institutions is critical in helping improving students' graduation records. Tadesse et al. [24] contend that the use of ICT enhances learning and the organization and the management of learning institutions. Tadesse et al. [24] further argue it is in teaching essential to the progress and development of both teachers and students. Englund et al. [25] maintain that over the last 25 years, educational technology in Higher Education (HE), particularly ODL, has been promoted as having the potential to transform teaching and learning. Adding their views on the importance of technology in HE, Ramdass and Masithulela [26] and Farah [27] are of the view that the advent of the digital era has brought with it very important changes in various aspects of the education system, and it is very difficult to provide tuition to students in ODL environments without the practice of technology and this creates an atmosphere which Farah et al. [27] refer to as the "digital disconnect." Technological advances have radically transformed the way in which education is delivered and received in HE institutions, particularly in ODL settings. Using technological platforms such as smart phones, tablets, and eBooks promote wider participation in HE ODL institutions and provides students with opportunities to understand their learning. Seconding this assertion, Kalelo-Phiri and Brown [28] are of the view that "Open and Distance Learning (ODL) in the form of print, radio/audio or video helps to reach out to learners who do not only experience geographical barriers but time barriers also."

In this chapter, it can be argued that the creation of an environment in which pedagogical practices are aligned and delivered to students through enhanced technology can improve students' success rates in ODL settings. Employing technological platforms such as e-resources constitutes effective learning and teaching tools that help overcome barriers in ODL environments [29]. Research indicates that advances in technologically based approaches enhance tuition in higher education sectors [29]. As argued earlier, students who study in ODL institutions are geographically distanced from the physical environment and the academics. Because of the nature of ODL institutions, tuition is largely dependent on technology-driven platforms and systems that mediate teaching. To this end, there should be an effort in mediating pedagogical practices within a collaborated context. Put simply, to improve the students' success rates, pedagogical practices based on the principles of constructive alignment in ODL contexts should be technology collaborated and driven. The change in curriculum delivery requires ODL staff members to reconsider the manner in which they teach their students. They have to be technology literate to help students achieve their objectives.

5. Perspectives on student success rates in ODL contexts

As argued earlier, open distance education has grown exponentially over the past few years. Credible research statistics on the students' success rates constantly paint a shocking and

uncomfortable picture in the HE sector throughout the world. This happens despite the sectors' efforts of providing opportunities of success to all students [30]. There is an abundance of empirical evidence on the factors that contribute toward low students' success rates [31]. The challenges and the complexities that face HE institutions, especially those that are related to the graduation rates are huge, and Mattie [32] points out that "HE environment continues to be complex, with increasing expectations about performance." Student success rate is understood and described differently by different scholars. Nitecki [3] describes student success rate as the process where students successfully complete their qualifications such as a degree. In this chapter, students' success is described as the ability of HE through ODL mode to help students graduate or complete the programs they are enrolled for in a stipulated time, for example, finishing a three-year qualification within specified record time.

The pass percentage rate at HE, particularly in ODL, is alarming [33]. Brock [34] laments that "although access to higher education has increased substantially over the past forty years, student success as measured by persistence and degree attainment, has not improved at all." Upholding and adding to the viewpoint above, Agiomirgianakis et al. [10] claim that "despite substantial government funding incentives, numerous policy initiatives and well-intentioned institutional efforts, retention and success rates remain extremely poor." Leadership in ODL settings have a huge responsibility and are under pressure to ensure that constructively aligned instruction opportunities are created and technologically mediated to boost the academic achievements of students.

Doley [35] is of the view that students who now participate in HE through ODL system have increased, but despite such growth, ODL institutions continue to face low student graduation rates because some of the enrolled students do not complete their qualifications within regulated specifications and some drop out of the system. Credible empirical research findings conducted by organizations such as UNESCO and UNICEF paint a gloomy picture of matters related to the students' graduation rates across the continents. What makes matters worse is the fact that ODL institutions do not only face low students' pass rates but the majority also drops out from the system. Figures supplied by Van Stolk et al. [36] supported by UNESCO [37] show a sturdy increase in enrolments, and the numbers recorded were above 170 million. Unfortunately, statistics continue to show that despite this increased participation, the majority of these students do not complete their qualifications and some drop out from the system.

The main argument advanced in this chapter is that when teaching and assessment strategies in ODL settings are aligned and students are provided with opportunities to construct their own meaning through appropriate technology, the intended learning outcomes are achieved and result in the promotion of the graduation rates of students. Biggs and Tang [38] are of the view that some HE staff members associate the decline of academic standards with intellectual abilities of today's students. Adding their voices to these debates, Tremblay et al. [39] postulate that "in the context of massive expansion of higher education systems and wider participation, there are persistent concerns related to the quality and relevance of students' preparation for higher education." In the next section, this chapter focuses on the benefits of students' success.

6. Benefits of student success rates

An education system that aims at producing high quality graduates assists in solving the challenges the world faces. The majority of countries face challenges, which are socioeconomic and political in nature. These current global socioeconomic and political challenges require a generation that is educationally enlightened, and hence, in 2000, 189 countries of the world came together to chart the strategy in an attempt to propose future solutions, and from that gathering, 59 sustainable development goals (SDGs) were identified. Though 59 sustainable goals have been identified, this section mainly focuses on the implications of improved student success rates on only three SDGs, namely the alleviation of poverty, decent work and economic growth, and industry, innovation, and infrastructure. The intention of HE is to produce the human capital that is able to respond to the societal needs [10]. Individuals who have attended universities become professionals and transformed because they are highly skilled and knowledgeable which is critical and helpful in the societies they come from. Through their skills, the communities they come from are economically advanced than communities with individuals who did not attend HE. The Sustainable Development Goals Report [40] maintains that “the objective of sustainable development goal number one is to ensure that people in every part of the world are given support that they need to lift themselves out of poverty in all its manifestations.”

It can be argued that constructively aligned and technology-mediated pedagogical practices can help improve student success rates which can indirectly assist in the alleviation of poverty, particularly in most poverty-stricken countries. This constitutes the very essence of sustainable development. “The fundamental goal focuses on ending poverty through inter-related strategies, including the promotion of social protection systems, decent employment and the resilience of the poor [40].” One of the strategies beneficial to societies in alleviating poverty is through the provision of constructively aligned ODL and technology-mediated tuition. Once the majority of the poor receive education, they will be able to sustain themselves either through creating employment or finding employment in the job market.

HE is playing a fundamental role in the countries’ economic improvement and development, and through educated graduates, sustainable growth is easy to achieve [41]. The British Council [42] also believes that the massification of HE is a major contributor toward national wealth and economic development. In supporting this assertion, Wood and Breyer [43] postulate that by “providing higher education opportunities to most students, governments adopt a human capital approach by investing heavily in higher education, believing that there are positive associations between higher education, transition to the labor market and economic growth.” Further, Wood and Breyer [43] maintain that the fundamental reason for the establishment of HE is mainly for the production of workforce that is adequately capacitated to firstly benefit the individual, secondly the communities, and thirdly the economies of the world. According to Mirowsky and Ross [44], holding a university qualification means status and prestige and improves the socioeconomic positions of individuals.

Industrialization is also critical in the absorption of human capital that is produced through constructively aligned and technology-driven mediated ODL curriculum. Wong [45] supported by Baumol [46] is of the view that “the production of adequate industrialists and graduates who are innovation driven by Higher Education through ODL settings is critical in achieving the goal focusing on industry, innovation and infrastructure.” Improved graduation rates are critical in helping in the achievement of sustainable development goals. The British Council [42] claims that the quality of graduates who are produced by HE lacks requisite industrial knowledge needed to boost business performance and confidence. University education provides students with an opportunity to achieve innovative skills that are needed in maintaining sustainable development. Wang [41] contends that universities play a critical role in the training of technically talented graduates for local economic development and innovation and entrepreneurship education. In the next section, the need for designing constructively aligned ODL curriculum shall be explored.

7. Rethinking ODL curriculum development: the need for constructively aligned and technology-driven ODL curriculum

This section provides insights and understanding in the development of constructively aligned and technology driven open and distance education curriculum. The notion curriculum encompasses a number of educationally related aspects, in this chapter without ignoring other critical aspects of this concept; the focus is on the learning outcomes, teaching and assessment strategies. In designing a curriculum in ODL settings, designers should always apply the principles of constructive alignment [7, 8]. Developing a fit-for-purpose curriculum requires the designers to think of the nature and the contexts in which ODL institutions operate. This involves selecting appropriate technology [47] that will enhance students’ success rates because technology in ODL settings has proven to be of great help to both students and lecturers [48]. The purpose of using technology in ODL curriculum is to provide opportunities for students to master the content to improve their graduation rates.

In improving the graduation rates at ODL institutions, it is very important to reconsider teacher development. ICT training should constitute the critical part of teacher development and training because introducing technology in education will change the manner in which teaching and learning takes place. The millennial generation understands better when technology becomes part of their studies. Curriculum developers should take into cognizance that for tuition to be effective, the principles of constructive alignment and technology-driven pedagogical practices constitute part of the process because Tadesse et al. [24] postulate that the use of Information and Communication Technology (ICT) can be beneficial for the pedagogy in ODL systems. Supporting the assertion, Henderson et al. [47] contend that “digital technologies currently form an integral feature of the university student experiences and as such, academic research has understandably focused on the potential of various digital technologies to enable, extend and even ‘enhance’ student learning.” For this reason, in this chapter, it is argued that constructively aligned teaching, learning, assessment and using appropriate technological tools improves the graduation rates of students.

8. Designing teaching strategies, assessment strategies, and learning outcomes for improved students' success rate

8.1. Learning outcomes

Learning outcomes are foundational, and poorly developed learning outcomes defeat the purpose and the rationale of the program and contribute toward high failure rate. Learning outcomes are foundational in the sense that they predict the kind of teaching and assessment strategies that are supposed to be developed. They also provide opportunities for students to develop their capabilities [49]. It is therefore critical that in designing, defining, and specifying learning outcomes, critical analysis of the nature and the context of ODL be taken into consideration. Designing effective learning outcomes should not be detached from developing the teaching and assessment strategies. This means that the process should not be an isolated process where the three components involved in constructive alignment are individually formulated. Learning outcomes should indicate the content that students are expected to know at the end of the lesson. The learning outcomes are written statements of what the students are expected to know, understand, and be able to do after completion of a learning unit [50]. The learning outcomes should be linked to the purpose and the rationale of the program and take into considerations the nature and mode of learning and teaching which is targeted at ODL students. In designing learning outcomes, developers should avoid crafting vague statements. "Good learning outcomes focus on the application and integration of the knowledge and skills acquired in a particular unit of instruction (e.g., activity, course program, etc.), and emerge from a process of reflection on the essential contents of a course" [51, 52]. According to Centre for Teaching Support and Innovation [53], the following characterizes good learning outcomes: they should be "smart, meaning manageable, applicable, realistic, time-bound, transparent, and transferable. Technological consideration is very critical in the design of learning outcomes [27]".

8.2. Teaching strategies and activities

Developing well-designed components of pedagogical practices such as teaching and learning strategies is very critical, particularly in ODL settings. These teaching strategies and activities should be guided by the learning outcomes that have been defined from the beginning. Teaching, learning, and assessment strategies should be demonstrated by appropriate activities that are intended to help students achieve well-defined learning outcomes. Teaching in an ODL environment is conducted differently from ordinary universities or other institutions of higher learning because as indicated earlier, students are not full time in classes. They are geographically detached from the classes. It is critical that teaching in these contexts take into account that the environments in which learners find themselves differ, they face different challenges and barriers, and because of that, teaching should employ different approaches and strategies that will make learning easier. In their pedagogical practices, teachers should always bear in mind the principles of technology-driven and constructive-alignment curriculum.

8.3. Assessment strategies and activities

Assessment is critical in ODL curriculum [54]. In administering assessment, academics must ensure that the process enhances students' learning experiences and their academic achievement. Assessing students forms an important part of teaching and learning process. It also assists in the identification of the weakness in the teaching process, and the areas which needs improvement. "Assessment also helps students to become more self-regulated, reflexive, independent individuals with the skills to exercise high-level assessment on their own and others' work that enhances lifelong learning" [54]. Cain and Babar [21] identify the following benefits of assessment: making the difference to student motivation, informing students' future study choices, providing a means of measuring the effectiveness of the module content and teaching methods, and providing information to teachers to help facilitate quality assurance and improvement. Cain and Babar [21] are of the view that assessment feedback is critical in constructive alignment and helps students understand their progress. Sadler [49] contends that "assessment should not be poorly designed, should not be ambiguous, should be interpreted the same by different students, should be clearly spelt out and specified and its intentions should be to assist students achieve the intended outcomes." Poorly designed assessment tasks and activities contribute toward low student success rate. Evans et al. [54] point out that even though students might be able to escape the effects of poor teaching, they are unlikely to succeed in escaping the effects of poor assessment. Technology-driven assessment strategies and activities are critical in improving student success rates. Mafenya [55] believes that the use of technology supports assessment and also feedback. The technology tools that are selected in assessing students should not be barriers to students' achievements, and they should rather make it easier for students to understand what they have learnt.

9. Conclusion

This chapter has argued that designing a constructively aligned pedagogy and mediating it through technological tools in ODL settings improve students' success rate. In this chapter, it has been indicated that most of the countries of the world massified higher education through distance education. Yet, despite providing higher education services to the majority of students, there remains a challenge of international proportions of low student success rates. Various critical themes were explored, and among them were included the description of ODL settings, theorization of the principles of constructive alignment, technology enhanced ODL, perspectives on students' success rate, benefits of students' success rate and designing electronically mediated constructively aligned ODL curriculum. It was argued that constructively aligned and technologically mediated pedagogical practices can help improve students' success rates.

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